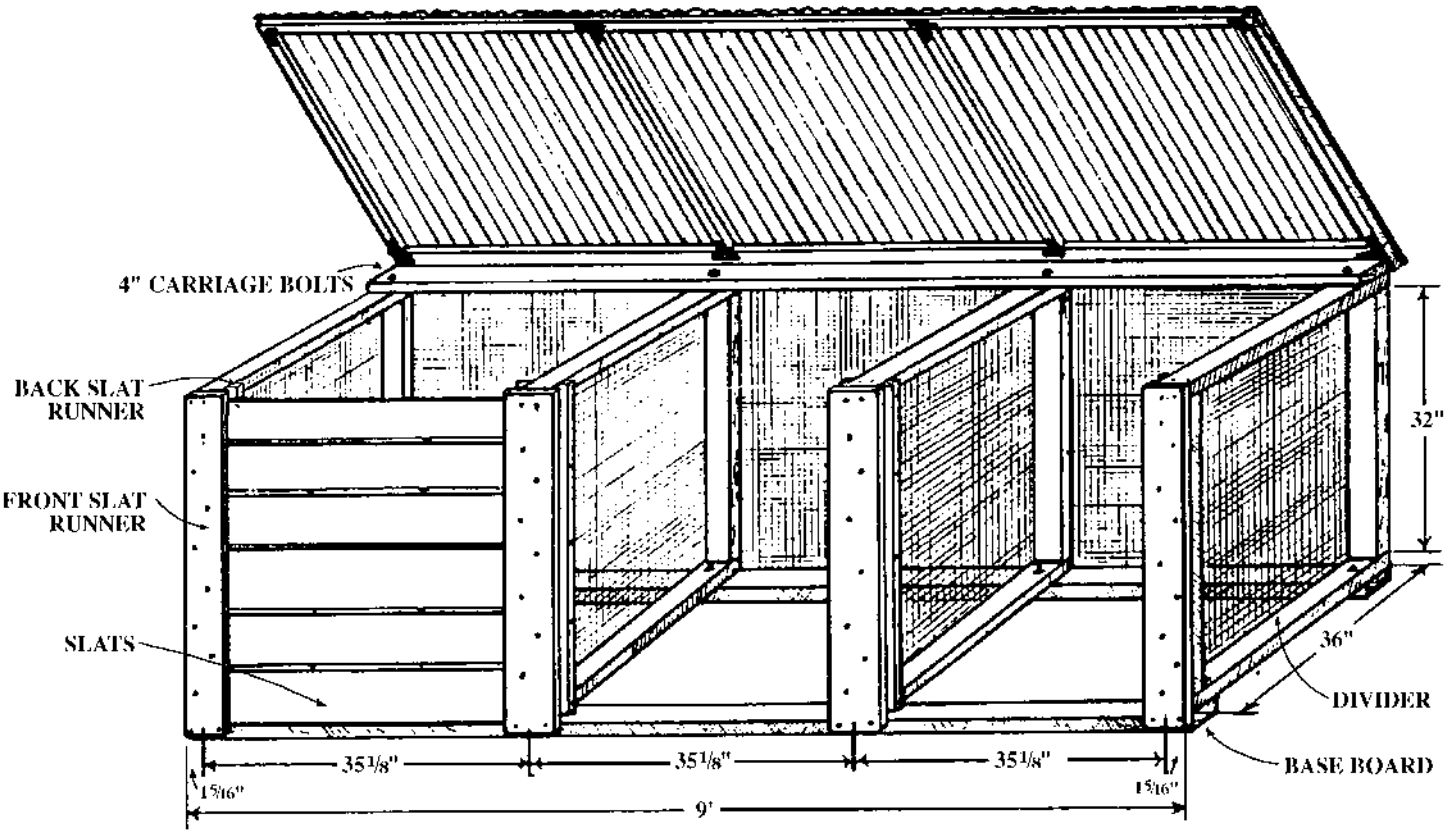
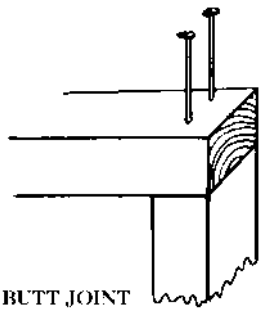
King County
Department of Natural Resources and Parks
Solid Waste Division

Wood & Wire Stationary 3-Bin System



(A Turning Unit)

This turning unit provides a convenient system whereby yard waste can be quickly turned into usable compost. To start the process, stock pile materials, enough to generously fill one of the three sections of this unit. For best results, these materials need to include fresh greens, such as grass clippings, and brown yard waste, such as fallen leaves, mixed together in a ratio of approximately 1:1. Chop, moisten, and mix these materials to get “hot” compost in about 7 days. After a week, start to check the temperature of the pile daily with your hand or a soil thermometer. The temperature should become quite warm (120° to 160°); when it starts to drop, turn the composting materials into the next section of the unit. Follow this temperature cycle and turn the material into the final section when the temperature rises and then drops again. In a span of approximately three weeks to a month, you can have usable compost. Store this compost in the third bin until needed.



Construction requires basic carpentry skills and tools. Material costs will vary with current lumber costs. (In February 1994, it cost approximately $200 to build this bin using new materials.) Costs will be less if recycled materials are used.

Construction Details

Build Dividers: Cut two 31" and two 36" pieces from a 12-foot 2x4. Butt joint the four pieces (see diagram) into a 34" x 36" frame and nail together with 16d nails. Repeat this process to make three more frames. Cut four 34" long sections of hardware cloth. Check that each frame is square and stretch hardware cloth across. Staple hardware cloth tightly in place every 4" along the edges.

Set Up Dividers: Cut four 10' 2x4 boards into four 9-foot pieces. Set up dividers so that they are equally spaced approximately 3-feet apart and parallel to one another. (The dividers form the sides of the 3 sections of this bin system; they should be placed to stand 34" high and 36" deep.) Measure and mark centers on the two inside dividers. Place two treated 9-foot boards (which will ultimately serve as the base boards for the bin system) on top of dividers and measure placement of the two inside dividers. Mark a center line for each divider on the 9-foot 2x4s. For each divider, line up center lines and position base boards so that they are flush with outer edges of the dividers. Through each junction of base boards and dividers, drill a 3/8" hole centered 21/2" in from outside edge of the divider. Secure base boards with carriage bolts, nuts, and washers, but do not tighten yet. Turn the unit right side up and use the same process to attach one untreated 9-foot board at the back of unit. Check that the bin system is square by measuring between the diagonal (opposite) corners. Tighten all bolts securely. Fasten a 9-foot piece of hardware cloth to the back side of bin with staples every 4".

Front Slats & Runners: Cut four 36" pieces from 2x6s for front slat runners. Rip cut two of these boards to 43/4" wide and nail securely to four dividers and baseboard at front of unit. Check that they are flush on top with the dividers. Save the remainder of rip cut boards for use as back runners. Center the remaining full-width boards on the front of inside dividers, flush with the top edge, and nail securely. To create back runners, cut the remaining 2x6 into a 34" long piece, then rip cut it into 4 equal pieces. Nail back runners onto sides of dividers so that they are parallel to front runners. Front and back runners should create a 1" gap in which slats will fit. Measure distance between dividers to determine length to cut slats. Cut the 1x6 boards into slats of the desired length.

Fiberglass Lid: Use the last untreated 9-foot 2x4 for the back of lid frame. Cut four 32" 2x2s and one 9-foot 2x2 to complete framing. Position 2x4 and 2x2s on the ground to construct lid frame (see 3 bin system illustration). Check frame for squareness. Screw corner braces and T-braces into what will be the bottom side of frame. Center lid frame, brace side down, on bin structure and attach with hinges. Cut wiggle mould to fit front and back 9-foot sections of lid frame. Pre-drill wiggle mould with 1/8" drill bit and nail to lid frame with 6d nails. Cut fiberglass to overhang frame by 1/2" on front and sides. Lay fiberglass over wiggle mould; overlap fiberglass pieces by at least one channel width. Pre-drill fiberglass and wiggle mould for nail holes; nail every third ridge with gasketed nails. To insure that wind does not lift the lid and damage the 3 bin structure, secure lid with a latch when it is closed. Also attach a 60" length of rope to lid and end divider on one side of unit to prevent the lid from flipping all the way over when it is opened.

Materials

4	10' 2x4s, 2 treated, 2 untreated
4	12' **or eight** 6' 2x4s
1	10' 2x2 **and two** 8' 2x2s
1	16' 2x6, preferably cedar
9	6' 1x6s, preferably cedar
22	ft of 36" wide 1/2" hardware cloth
12	3/8" carriage bolts 4" long
12	washers and nuts for bolts
3	lbs. 16d galvanized nails
1/2	lb. 6d galvanized nails
250	poultry wire staples **or** power stapler with 1" staples
3	8' lengths of wiggle mould
1	12' sheet **and one** 8' sheet 4 oz. clear corrugated fiberglass
40	gasketed aluminum nails for corrugated fiberglass roofing
3	3" zinc plated hinges for lid
8	flat 4" corner braces with screws
4	flat 3" T-braces with screws
1	latch for lid
1	60" length of rope

Tools Required: Hand saw or circular power saw, drill with 3/8" and 1/8" bits, screwdriver, hammer, tin snips, tape measure, pencil, 9/16" socket or open-ended wrench, carpenter's square. (Optional: power stapler with 1" long galvanized staples.) **Remember to use eye and ear protection.**

For more information on King County's waste reduction, recycling and composting programs, call the
Recycling and Composting Information Line at 296-4466.

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